

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In Re Application of:)
Chin Hin Oon et al.)
Attorney Docket 70040134-1) Examiner: Jade R Callaway
Serial No. 10/804,286) Group Art Unit: 2872
Filing Date: March 18, 2004) Confirmation No. 7809
For: COLOR FILTER AND METHOD)
FOR FABRICATING THE SAME)

REPLY BRIEF

To: Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The Appellants herewith respectfully submit the following
reply brief in response to the Examiners Answer of January 24,
2008.

1. Reply to Examiners Answer

The Examiner has indicated that "Appellants' argue that the transmission curves as disclosed by Suda et al. in figures 10 and 12, only consider a small portion of the transmission curve of filter 7" and that the Examiner believes that "the transmission curves as disclosed by Suda et al. in figures 10 and 12 have enough clarity and-detail to sufficiently show a large enough portion of the transmission curve of filter 7 to show that the structure of Suda et al, is capable of performing the recited function as required by Appellants' claims." When determining whether the transmission function of Suda's filter 7 is **"selected to selectively block light at edges of said first and second bands of wavelengths that is not blocked by said primary filter layer transmission function"** as in claim 1, Appellants believe that it is improper to consider just a small portion of the transmission curves of FIG. 10 to the exclusion of the remainder of the transmission curves of FIG. 10. Even if one portion of a transmission curve of Suda's filter 7 happens to attenuate light at an edge of a transmission curve when applied to a specific color filter, Suda's filter 7 does not perform the claimed function when applied to the remainder of the transmission curves of those same color filters, or at all when applied to other color filters as disclosed by Suda in FIG. 4. Suda explicitly discloses that the transmissivity characteristics of filter 7 are determined for another purpose. (See Suda, col. 9, lines 30-37) The Examiner considers only a small portion of the transmission curve of filter 7 illustrated in FIG. 12, considering its effect on the right/falling edge of curve 16' but ignoring its effect on the left/rising edge of curve 16', and considering its effect on the left/rising edge of curve 17' but ignoring its effect on

the right/falling edge of curve 17'.

Appellants respectfully disagree that one skilled in the art would look at Suda's figures that show filter 7 attenuating the right edge of a corresponding curve 16' but not the left edge of curve 16' and conclude that this filter 7 is a trim filter that is selected to selectively block light at edges of first and second bands of wavelengths that is not blocked by the primary filter layer transmission function. This is particularly true if the person skilled in the art also considered Suda's explicitly stated purpose for filter 7:

"The transmissivity characteristics of the spectral distribution correction filter 7 are determined to minimize the output differences corresponding to the colors of the color separation filters in the sensor according to the transmissivity characteristics of the color separation filters in the solid-state color image sensor and the spectral sensitivity characteristics of the photoelectric transducer elements."
(Suda, col. 9, lines 30-37)

Just because Suda's filter 7 that is designed "to minimize the output differences corresponding to the colors of the color separation filters" may attenuate one edge of the transmissivity curve for one of the color separation filters does **not** mean that Suda has taught the claimed trim filter. Suda explicitly teaches that filter 7 is designed for another purpose, and Suda's filter 7 does not uniformly achieve the purposes of Appellant's claims.

The Examiner further argues that Suda's application of filter 7 to the color separation filters of FIG. 4 is moot, and that it is only the embodiment of applying filter 7's curves in FIG. 12 to the curves of color separation filters in FIG. 10 that is relevant. Appellants respectfully disagree. One skilled in the art considering the Suda reference and attempting to understand the relevance and teachings of filter

7 would consider all the examples in determining what filter 7 is and how it is designed. Suda explicitly states that filter 7's transmissivity characteristics are determined to minimize output differences of the various colors from color separation filters. Suda gives examples of applying **the same filter 7** to two different sets of color separation filters, one in FIG. 4, one in FIG. 12. Appellant notes that this is not two different embodiments of filter 7, it is the same filter 7 being applied to two different sets of color separation filters. Suda does not teach that filter 7 has two different purposes, or two different designs in these two embodiments. This is not merely a demonstration of the "versatility" of filter 7 as indicated by the Examiner, these are two embodiments that explain the purpose and utility and design characteristics of the single filter 7. Thus, Appellants respectfully believe that it is incorrect to ignore curves 16, 17 and 18 from FIG. 4, because Suda uses them to teach what filter 7 is and how its transmissivity characteristics are determined. Appellants believe that it is clearly an improper piecemeal hindsight reconstruction to consider two of the 12 edges of the six curves shown in FIGS. 4 and 10 and to take the position that a trim filter as in Appellants claims has been taught, while completely ignoring Suda's explicit teaching about what filter 7 is for and how it is designed.

The Examiner has indicated that Appellants are reading limitations from the specification into the claims with respect to the trimming function of the claims, but does not appear to have indicated exactly what limitations have been read into the claims from the specification. In fact, Appellants disagree that any limitations have been read into the claims from the specification. Claim 1 explicitly requires that the transmission function of the first trim filter be **selected** to selectively **block light at edges of said**

first and second bands of wavelengths that is not blocked by said primary filter layer transmission function. Suda clearly does not disclose that filter 7 is **selected** to block light at edges of first and second bands of wavelengths. Suda has explicitly disclosed how the transmissivity characteristics of filter 7 are selected and that is to "minimize the output differences corresponding to the colors of the color separation filters in the sensor". This is a limitation that appears in the body of the claim, that the transmission function be selected to block light at edges of the first and second bands of wavelengths. The fact that Suda's filter 7 happens to attenuate light at two of the 12 edges of wavelength bands filter 7 is applied to in Suda's figures does not mean that Suda's filter 7 is selected for that purpose, particularly in light of Suda's explicit teaching and the figures showing all the edges that Suda's filter 7 does not attenuate. Appellants respectfully continue to disagree that Suda would teach one skilled in the art to form the claimed trim filter based on one portion of Suda's figures while willfully ignoring Suda's explicit textual description and the remainder of Suda's figures.

Regarding the Examiners Answer with respect to claim 8 and the bonding of a primary filter layer, a first trim filter layer and a substrate together, Appellants believe that the lack of any references showing a trim filter and a primary filter layer to be bonded is evidence that claim 8 does not involve "only routine skill in the art". Conventional multicolor filters over photosensors require narrowly tailored individual filters over each color photosensor. As discussed above, Suda does not disclose a trim filter as in Appellants claims. The lack of such a bonded primary and trim filter in the marketplace also provides evidence that the claimed invention does not involve "only routine skill in the art".

In re Larson, 340 F.2d 965, 968,144 USPQ 347, 349 (CCPA 1965)

applies to integrally forming articles that were **formerly**
formed in multiple pieces. As discussed above, the primary
and trim filter of Appellants claims have not been formerly
5 formed in multiple pieces. Furthermore, it is respectfully
noted that **In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA**
1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed.

Cir. 1986 has been misapplied in the Examiners Answer. In re
Keller is directed at individually attacking combined
10 references. Only one reference, Suda, has been applied in the
rejection. In re Keller does not apply to "combinations" of a
single patent reference and a court holding. The rejection of
claim 8 is based on a single reference, Suda, and not on a
combination of Suda and In re Keller.

15 In view of the above, all of the claims are believed to
be in condition for allowance, and the Appellants respectfully
request reversal of the rejection.

Respectfully submitted,
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